

1           1.    A method comprising:  
2                developing a patterned photoresist;  
3                applying a plasticizer to the surface of said  
4 patterned photoresist to decrease line edge roughness; and  
5                reflowing the photoresist after applying the  
6 plasticizer.

1           2.    The method of claim 1 including applying the  
2 plasticizer in a supercritical fluid.

1           3.    The method of claim 2 including applying the  
2 plasticizer in a supercritical carbon dioxide fluid.

1           4.    The method of claim 1 including applying the  
2 plasticizer as a separate step after developing the  
3 photoresist.

1           5.    The method of claim 1 including applying the  
2 plasticizer with the developer.

1           6.    The method of claim 1 including applying the  
2 plasticizer with the develop rinse.

1        7.    The method of claim 1 including applying a  
2 plasticizer that improves the etch resistance of the  
3 photoresist.

1        8.    The method of claim 1 wherein applying a  
2 plasticizer includes diffusing a plasticizer into the  
3 photoresist.

1        9.    The method of claim 8 including diffusing a  
2 plasticizer in a vapor phase into the photoresist.

1        10.   The method of claim 1 including controlling the  
2 amount of reflow by volatilizing the plasticizer during  
3 reflow.

1        11.   The method of claim 1 including applying the  
2 plasticizer in liquid carbon dioxide.

1        12.   The method of claim 1 including controlling the  
2 amount of reflow by cooling the photoresist.

1        13.   A semiconductor structure comprising:  
2            a patterned photoresist; and  
3            a coating of plasticizer on said photoresist.

1        14. The structure of claim 13 wherein said  
2 photoresist is developed.

1        15. The structure of claim 13 wherein said  
2 plasticizer includes hydrofluoroether.

1        16. A method comprising:  
2            applying a plasticizer to the surface of  
3 patterned photoresists to decrease line edge roughness; and  
4            heating the photoresist and the applied  
5 plasticizer to reflow the photoresist.

1        17. The method of claim 16 including applying the  
2 plasticizer in a supercritical fluid.

1        18. The method of claim 17 including applying the  
2 plasticizer in a supercritical carbon dioxide fluid.

1        19. The method of claim 16 including applying the  
2 plasticizer as a separate step after developing the  
3 photoresist.

1        20. The method of claim 16 including applying the  
2 plasticizer with the developer.

1        21. The method of claim 16 including applying the  
2 plasticizer with the develop rinse.

1        22. The method of claim 16 including applying a  
2 plasticizer that improves the etch resistance of the  
3 photoresist.

1        23. The method of claim 16 wherein applying a  
2 plasticizer includes diffusing a plasticizer into the  
3 photoresist.

1        24. The method of claim 16 including controlling the  
2 amount of reflow by volatilizing the plasticizer during  
3 reflow.

1        25. The method of claim 16 including controlling the  
2 amount of reflow by cooling the photoresist.

1        26. The method of claim 16 including diffusing a  
2 plasticizer in a vapor phase into the photoresist.

1        27. The method of claim 16 including applying the  
2 plasticizer in liquid carbon dioxide.